Kojo D. Kumah

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Experienced generalist game programmer with strong design sensibilities and leadership qualities. Solid understanding of game and software development on a wide variety of platforms as well as common production methodologies. Pro-active, curious, and humble problem solver.

SKILLS, TOOLS, & TECHNOLOGIES

C++, Racket/Scheme, C#, Python, JavaScript, Blueprint, MySQL, Unreal Engine, Unity, Godot, Custom Engines (ND, SDS, Decima), Perforce, Git, SVN, Windows, macOS, Linux, AWS, PlayStation Development, PC, VR, Android, iOS, Web

PROFESSIONAL EXPERIENCE

Sony Interactive Entertainment
Bend Studio (November 2023 – Present)
Game Programming
Unannounced Title **Senior Gameplay Programmer**
- AI Systems
- Open World Systems

Sony Interactive Entertainment
PlayStation Studios Creative Arts Development (March 2021 – October 2023)
Game programming and general development support

The Last of Us Part II: Remastered (PS5) **Senior Gameplay Programmer** (September 2022 – September 2023)
- Feature lead on multiple game systems (Rogue Mode, Save Data, Leaderboard). Led implementation of large and complex features. Supported Design team. Fixed bugs
- Advocate for improved development and production practices for team
- Supported leadership by helping delegate tasks and occasionally being point of contact for other team members' technical inquiries

The Last of Us Part I (PS5) **Gameplay Programmer** (March 2021 – September 2022)
- Worked with Naughty Dog engine and custom tools to implement gameplay features and fix bugs
- Primarily worked on player systems such as animation, locomotion, interaction, weapons, combat, upgrades, and inventory management
- Also worked on broader gameplay systems such as difficulty tuning and item drops
- Worked very closely with many team members of various disciplines at PS Studios and Naughty Dog to iterate and produce high quality game experiences

Sony Interactive Entertainment
San Diego Studios (June 2017 – March 2021)
Author and maintain client and server code for games and tools

Unannounced Title (PS4, PC) **Senior Programmer** (October 2018 – January 2021)
- Worked heavily in source build of Unreal Engine 4 (C++/Blueprint) co-leading technical development of project
- Designed, prototyped, and maintained various game systems (locomotion, animation, interaction, inventory, AI, melee, etc.) in authoritative client-server model
- Developed continuous build system for game clients and dedicated server to streamline regular playtests
- Wrote various build scripts for team
- Ported custom MLB Server and Network Client (Fastball) to Unreal Engine for our backend systems

MLB: The Show 19 & 20 (PS4) **Senior Online Programmer** (July 2018 – March 2020)
- Worked with designers, artists and other team members to develop online and offline features
- Developed tutorial for marquee Online Mode, Diamond Dynasty
- Created year to year process for Logo Vault

MLB: The Show 18 (PS4) **Online Programmer** (June 2017 – July 2018)

- Helped team re-write micro service game server in C++ and C#
- Worked with Design and Art to completely revamp UGC "Vault" system
- Worked on content and administrative tools for Live Services team

Independent Developer (April 2012 – June 2017)
Designed, developed, and consulted on a variety of interactive experiences targeting several platforms

Fireworks (Unreleased – iOS, Android) **Lead Programmer** (2016 – 2017)
- Gameplay prototyping for math focused educational game in Unity
- General project management and development consulting

Pulse (Unreleased – VR) **Game Programmer** (2017)
- Created VR prototype of on-rails spline locomotion in UE4

Dungeon Chess (Oculus VR) **Game Programmer***(2016)*
- Created asset pipeline and development tools for character animations and VFX in Unity

Bop the Bigot (WebGL) **Game Programmer** (2016)
- Created satirical whack-a-mole game in partnership with Arizona based community organization to promote voter turnout for the 2016 election cycle with PixiJS

Forget It (Unreleased – mobile, PC) **Lead Developer** (2012 – 2016)
- Designed and programmed multiple iterations of original memory puzzle game in C++ with OpenFrameworks
- Worked primarily in Linux with open source tools for majority of project

Orbulous (Unreleased – iOS, Android) **Lead Programmer** (2015 – 2016)
- Gameplay prototyping for radial match-3 mobile game in Unity
- General project management and development consulting

Tactera (VR [Oculus, HTC, Google, Samsung], PC) **Multiplayer Programmer** (2014 – 2017)
- Implemented synchronous P2P multiplayer gameplay for VR RTS in Unity using Photon
- Implemented multiple input modes (gaze, gamepad, hand controller, wand) with dynamic switching and ported to room-scale VR and PC

VRBot (Samsung Gear VR) **Game Programmer** (2015 – 2016)
- Created multiple interactive experiences for VR e-card platform in Unity

Fantisserie (Unreleased – iOS, Android), **Lead Programmer** (2015 – 2016)
- Client and server programming for synchronous fantasy football drafting game using Unity and Smartfox Server
- Developed multiple prototypes with varying input schemes and powerups

Transformers: Battle Masters (iOS, Android, Kindle) **Game Programmer** (2013 – 2014)
- Co-lead development of all gameplay systems for mobile boxing game promoting new Hasbro toy line
- Worked heavily on animation, combat, and VFX in Unity

Record Wreckers (iOS, Flash, Browser) **Game Programmer** (2013 – 2014)
- Fixed bugs and completed simple minigames in HTML5 with Construct 2
- Ported to Flash, built to iOS, and published to App Store

SkyFall – B.I.O. Exam (Flash) **Software Developer** (2012)
- Integrated audio fingerprinting system Echoprint into MI6 text adventure game promoting 2012 James Bond film

Cell Team Six (Unreleased – iOS, Android) **Game Programmer** (2012 – 2013)
- Game design and Flash mobile prototyping and for citizen science Connectomics project in collaboration with Neuroscientists at Cornell University and the Max Planck Institute

Zynga Inc.
Zynga NY (January 2011 – April 2012)
Full Stack Development of synchronous and asynchronous social web games with millions of users

The Friend Game (Flash) **Senior Software Engineer** (2012)
- Integrated experimental UI framework into novel social game prototype

Pioneer Trail (Flash) **Software Engineer** (2011)
- Client and server feature development and bug fixing for asynchronous Ville game
- Setup PHP debugging with XDebug for team

Zynga Bingo (Flash) **Software Engineer** (2011)
- Client gameplay programming (animation, UI, VFX, etc.) for real-time bingo game with various power ups
- Client and server bug fixing

Area / Code Entertainment (October 2009 – January 2011)
Primarily Front End Development of synchronous and asynchronous social web games and development tools

Parking Wars 2 (Flash) **Developer** (2011)
- Client and some server programming (interaction, animation, UI, logic) for asynchronous car parking game
- Integrated various Facebook APIs for social engagement. Also integrated and managed analytics

CSI: Crime City (Flash) **Tool Programmer** (2010 – 2011)
- Created cut-scene editor/player with XML scripting system used heavily for story content
- Integrated various third party telemetry solutions and managed game analytics

Code of Everand (Flash) **Front End Developer** (2010 – 2011)
- Client gameplay programming (interaction, animation, audio, game logic) for minigame in Flash MMORPG
- Updated in-game chat: keyboard shortcuts & character emotes
- Updated client development process in game (moved us to Flex IDE from Flash Authoring)

Power Planets (Flash) **Front End Developer** (2009 – 2010)
- Client gameplay programming (interaction, UI, animation, AI, etc.) for asynchronous planet simulation game
- Implemented Facebook Connect Web API so game could be hosted on Science Channel's website

Rebel Monkey, Inc. (May 2008 – July 2009)
Front End Development of synchronous, collaborative, multiplayer web games, prototypes, and development tools

Internal Prototypes (Flash) **Junior Game Programmer** (2008 – 2009)
- Developed single player prototypes of collaborative game concepts

Flint Editor (Flash/AIR) **Tools Programmer** (2008 – 2009)
- Created tool and pipeline for artists to create, edit, save/load particle effects based on the Flint Particle System
- Generated full AS3 class descriptions through reflection

Critter Smackdown (Flash) **Junior Game Programmer** (2008)
- Client gameplay programming (animation, UI, audio, VFX, etc.) for third person smack-a-mole
- Implemented path finding for player characters in non-uniform grid

Word Mob (Flash) **Junior Game Programmer** (2008)
- Client gameplay programming (animation, UI, audio, VFX, etc.) for third person word game
- Implemented basic path finding for player characters in simple grid

VOLUNTEERING

Gameheads
Mentor, Fellowship Council Member 2018 – Present
Mentored young, Oakland based game developer for multiple years. Met biweekly with mentee to discuss project and personal development. Meet biweekly with fellowship teams to evaluate project progress as well as offer feedback and suggestions. Occasionally do extra meetings with teams or individuals to troubleshoot specific issues or ideate on certain aspects of their projects.

Black Voices in Gaming
Advisor 2022 – 2023
Supported the leadership team and overall mission of Black Voices in Gaming. Advocated for Black developers, creators, and entrepreneurs in the gaming space by sharing resources, opportunities, and networks. Also through relationship building and general game development and business consultation.

Black@PlayStation (formerly PAAN)
eNet Lead, Community Outreach Lead 2018 – 2023
Made PlayStation a great place to work and play for Black people for many years. Organized, hosted, ran, and supported various in-person and virtual events on and off-site. Collaborated with local, regional, and national organizations focused on game and tech mentoring for black and other underrepresented youth. Wrote and sent mass communications with overall membership over email and Slack. Facilitated employee networking to better share information, contacts, and access to opportunities. Provided a safe space and open forum for discussion in regular Coffee Chats. Lead various DEI projects and initiatives on behalf of the eNet. Delegated responsibilities. Recruited new members. Worked cross-functionally with different eNets and organizations within SIE and Sony Corporation broadly on aligned goals. Advocated for more public facing content. Surfaced underrepresented developers to Third Party Relations team and regularly advocated on their behalf. Advised Social Impact Team on strategy and execution.

IGDA San Diego
Board Member, Treasurer. 2015 – 2018
Helped connect the local San Diego game development community and establish a healthy and vibrant scene for students, hobbyist, and professionals. Hosted a monthly mixer every month for over 3 years. Established rotating mixer locations to better service the large San Diego county area. Helped organize 2 in-person game jams a year. Connected with main IGDA organization for funding and opportunities for our membership.

EDUCATION
College of Arts and Sciences, **New York University**, New York, NY
BA 2008 | Computer Science & Cinema Studies